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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 February 2008</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-25</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

02/07/2008 has been entered.

2.   Claims 1-25 are pending.

Response to Arguments

3.   Applicant's arguments filed have been fully considered but they are not

persuasive.

        First, applicant repeatedly argues that the prior art does not teach: "the

messages between the one or more synchronization applications and the interface layer

are independent of a protocol used between the interface layer and the synchronization

protocol stacks" and argues on the inherency of a synchronization protocol stack. The

examiner respectfully traverses. The prior art does disclose "one or more

synchronization protocol stacks" as a plurality of synchronization protocol such as

HTTP, SyncML, WebDAV, SOAP and ebXML (Ong, [0143]); whereas the application

also uses SyncML, WebDAV as synchronization protocols (application, fig. 4). At least

one synchronization protocols inherently exist in a protocol stack of the network device

that supports the protocols (see support in Ericsson, SyncML Sync Protocol, version

1.0.1, section 1.1, fig. 1, SyncML I/F is the interface layer, SyncML adapters communicating to each other on a synchronization layer with SyncML synchronization protocol (presentation layer of a OSI stack), coupled to HTTP/WSP/OBEX or the network layer). Furthermore, Ong discloses a generic API that comprises a plurality of converting and merging plug-ins (for synchronization), wherein default plug-ins can be provided ([0139], or standard plug-ins for standard synchronization can be provided). In [0133] lines 14-18, Ong discloses that a plug-in is independent of an application (plug-ins can be updated dynamically at runtime independently of an application). Therefore, application communications with the API is independent of the synchronization scheme (converting and merging modules) provided by the API, reading on "the messages between the one or more synchronization applications and the interface layer are independent of a protocol used between the interface layer and the synchronization protocol stacks". Note that the claimed "a protocol" is not referred the synchronization protocol, e.g., in limitation c) of claim 1. So it can be read as any protocol. Finally, a protocol is not used between layers of a protocol stack, but between same layers of two protocol stacks. It is a primitive that communicates between protocol layers (dictionary definitions of protocol, and abstract of US 6,614,807 for interlayer primitive). Applicant's use of "a protocol used between the interface layer and the synchronization layer" is vague and indefinite.

4.   Second, applicant argues that Ong teaches away from the invention. In response, see In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004) [However, "the prior art's mere disclosure of more than one alternative does not

constitute a teaching away from any of these alternatives because such disclosure does

not criticize, discredit, or otherwise discourage the solution claimed…."]. In this case,

there is no disclosure, teachings and/or suggestions in Ong that would enable one of

ordinary skilled in the art to conclude that Ong <u>avoids</u> the plug-ins to be provided in a

default package of conventional synchronization protocols. On the contrary, Ong

discloses just that (see Ong, [0139], default plug-ins, [0143], conventional

synchronization protocols SyncML, WebDAV). So conventional modules can be

provided to the API as a default package for converting/merging documents between

applications. Ong discloses that a plug-in is independent of an application (plug-ins can

be updated <u>dynamically at runtime</u> <u>independently of an application</u>). Therefore,

application communications with the API is independent of the synchronization scheme

(converting and merging modules) provided by the API. Document format converting

between the application layer and the API is independent from the synchronization

protocol, which can be <u>any one</u> of already available synchronization protocols: SyncML

and/or WebDAV ([0143]).

5.   The examiner respectfully traverses the arguments on U.S.C. 103 rejections for

the same rationale given above.

Claim Objections

6.   The claims are objected to because the lines are crowded too closely together,

making reading difficult. Substitute claims with lines one and one-half or double spaced

on good quality paper are required. See 37 CFR 1.52(b).

7.   Claims 15 and 21 recite "the network of device." This phrase should be "the

network of devices." Applicant is required to check for similar errors in rest of the claims.

Claim Rejections - 35 USC § 112

8.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

9.   Claims 21-25 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. Consider claim 21, for example, the claim recites an

apparatus ... comprising: means for sending and receiving messages and means for

generating and receiving communication... It is believed that these means are software

modules that communicate between layers in fig. 3 and 4 of the specification. Therefore,

it is vague and indefinite that the apparatus only comprise software means alone.

Correction is required.

10.   Claims 1-7 are rejected for the same rationale as in claim 21. A device cannot

comprise software alone.

Claim Rejections - 35 USC § 101

11.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a patent therefor,
> subject to the conditions and requirements of this title.

12.   Claims 21-25 are rejected under 35 U.S.C. 101 the claimed invention is directed

to non-statutory subject matter. Based on the rationale given in the 35 USC § 112

rejection above, the claimed apparatus is software per se, and is therefore non-

statutory.

13.   Claims 1-7 are rejected for the same rationale as in claim 21.

Claim Rejections - 35 USC § 103

14.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

15.   Claims 1-5, 6-13, 15-18 and 20-24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ong et al. (US 2003/0182450, hereafter Ong), in view of Ericsson et

al. (SyncML Sync Protocol, hereafter Ericsson)

16.   For claim 15, Ong discloses a method of providing an interface to one or more

synchronization applications resident within a first device coupled to a network of

devices (abstract), the method comprising:

- sending and receiving messages to and from the one or more synchronization

    applications through an interface layer to one or more synchronization protocol,

to synchronize data between the first device and at least one other device within
the network of devices ([0046] lines 7-10, synchronization client application,
[0139], API interface between applications and synchronization plug-in modules
for synchronization tasks, [0143] lines 1-9, a user client synchronizes with a
server or other devices using an synchronization protocol such as SyncML or
WebDAV),

- wherein the messages between the one or more synchronization applications
  and the interface layer are independent of a protocol used between the interface
  layer and the synchronization protocols ([0139], communications between the
  application layer and the API does use not a protocol and is independent of
  synchronizing protocols such as SyncML and WebDAV, [0133] lines 14-18, a
  plug-in is independent of an application because plug-ins can be updated
  dynamically at runtime independently of an application. Application
  communications with the API is independent of the synchronization scheme
  (converting and merging modules) provided by the API or a synchronization
  protocol); and

- generating and receiving communications at the interface layer to complete data
  synchronization between the first device and the at least one other device within
  the network of device ([0139], API for document conversion, differencing, and
  merging of documents created or edited on more sophisticated devices for
  synchronizing documents of applications between devices, [0143], supporting a
  variety of synchronization protocols such as SyncML, WebDAV).

Ong does not explicitly disclose one or more synchronization protocol stacks or a synchronization layer.

However, Ericsson discloses the same (fig. 1, SyncML adapter is the synchronization protocol stack or synchronization layer between interface layer I/F and transport layer)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Ong and Ericsson to apply the framework of Ericsson in order to develop a synchronization method supporting a plurality of synchronization protocols as one described by Ong.

17.   For claim 21, Ong discloses an apparatus for providing an interface to one or more synchronization applications resident within a first device coupled to a network of devices (abstract), the apparatus comprising:

- means for sending and receiving messages to and from the one or more synchronization applications through an interface layer to one or more synchronization protocols, to synchronize data between the first device and at least one other device within the network of devices ([0139], API interface between applications and plug-in modules for synchronization tasks, [0143] lines 1-5, synchronization protocols, lines 5-9, a user client synchronizes with a server (or some other devices) using an email protocol), wherein the messages between the one or more synchronization applications and the interface layer are independent of a protocol used between the interface layer and the

synchronization protocols (Ong, [0139], an application programming interface API is not a protocol and is independent of synchronizing protocols such as SyncML and WebDAV, [0133] lines 14-18, a plug-in is independent of an application (plug-ins can be updated dynamically at runtime independently of an application). Application communications with the API is independent of the synchronization scheme (converting and merging modules) provided by the API or a synchronization protocol); and

- means for generating and receiving communications at the interface layer to complete data synchronization between the first device and the at least one other device within the network of device (Ong, [0139], API for document conversion, differencing, and merging of documents created or edited on more sophisticated devices for synchronizing documents of applications between devices, [0143], supporting a variety of synchronization protocols such as SyncML, WebDAV).

Ong does not explicitly disclose one or more synchronization protocol stacks or a synchronization layer.

However, Ericsson discloses the same (fig. 1, SyncML adapter is the synchronization protocol stack or synchronization layer between interface layer I/F and transport layer)

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Ong and Ericsson to apply the framework of Ericsson in order to develop a synchronization method supporting a plurality of synchronization protocols as one described by Ong.

18.   For claims 16 and 22, the claims are rejected as in claims 15 and 21. Ong-

Ericsson further discloses the synchronization application is selected from a group

consisting of Personal Information Manager (PIM) sync, contents distribution, and

contents upload (Ong, [0005] lines 9-18, PIM, [0037], [0038], downloading and

uploading synchronizations are possible).

19.   For claims 17 and 23, the claims are rejected as in claims 15 and 21. Ong-

Ericsson further discloses the interface layer is an application programming interface

(API) (Ong, [0139]).

20.   For claims 18 and 24, the claims are rejected as in claims 15 and 21. Ong-

Ericsson further discloses the interface layer is protocol independent (Ong, [0139], an

application programming interface API is not a protocol).

21.   For claim 20, the claim is rejected as in claim 15. Ong-Ericsson discloses the

communications generated at the interface layer are sent to a network layer via one

synchronization protocol within the first device, and communications received at the

interface layer are received from one synchronization protocol stacks via the network

layer (Ericsson, fig. 1, at the sending side, data goes from the interface layer (SyncML

I/F) to synchronization layer (SyncML adapter) to the network layer, and vice versa at

the receiving side).

22.   For claim 1, Ong discloses a first device to synchronize data with a second

device (fig. 1B, server and small device synchronizing), the first device (server)

comprising:

- one or more applications (fig. 2, server 102 contains office applications, [0028]-

    [0030], sound, video, and word processing applications);

- a network layer coupled to interface with the second device ([0031] lines 12-16,

    network layer between the server and the small device, [0038] lines 19-21, HTTP

    or XML network layer);

- synchronization protocols to provide a synchronization protocol between the first

    device and the second device ([0143] lines 1-5, synchronization protocols, lines

    5-9, a user client synchronizes with a server (or some other devices) using an

    email protocol); and

- an interface layer coupled to communicate with the one or more applications and

    the synchronization layer to provide generic synchronization communications

    between the one or more applications and the synchronization layer ([0139], an

    application programming interface API to communicate with the documents (or

    applications) and the synchronization plug-in modules (synchronization layer,

    [0143] lines 1-5, SyncML and WebDAV synchronization protocols); wherein the

    messages between the one or more synchronization applications and the

    interface layer are independent of a protocol used between the interface layer

    and the synchronization protocol stacks (Ong, [0139], communications between

the application layer and the API does use not a protocol and is independent of

available synchronizing protocols such as SyncML and WebDAV);

Ong does not explicitly disclose a synchronization layer coupled to the network

layer and the synchronization layer consists of synchronization protocol(s).

However, Ericsson discloses a synchronization layer coupled to the network

layer and the synchronization layer consists of synchronization protocol(s) (section 1.1,

fig. 1, SyncML I/F is the interface layer, SyncML adapter is the synchronization layer,

coupled to HTTP/WSP/OBEX or the network layer).

Therefore, it would have been obvious for one skilled in the art at the time of the

invention to combine the teachings of Ong and Ericsson to apply the framework of

Ericsson in order to develop a synchronization method supporting a plurality of

synchronization protocols as one described by Ong.

23.   For claim 8, Ong discloses a network comprising one or more network devices

(fig. 2, a server, a workstation, a small device); and an application device comprising:

- one or more applications (fig. 2, server 102 contains office applications, [0028]-

  [0030], sound, video, and word processing applications);

- a network layer coupled to interface with the one or more network devices

  ([0031] lines 12-16, network layer between the server and the small device,

  [0038] lines 19-21, HTTP or XML network layer);

- synchronization protocols to provide a synchronization protocol between the

  application device and the one or more network devices ([0143] lines 1-5,

synchronization protocols, lines 5-9, a user client synchronizes with a server (or some other devices) using an email protocol); and

- an interface layer coupled to communicate with the one or more applications and the synchronization layer to provide generic synchronization communications between the one or more applications and the synchronization layer ([0139], an application programming interface API to communicate with the documents (or applications) and the synchronization plug-in modules (synchronization layer, [0143] lines 1-5, SyncML and WebDAV synchronization protocols); wherein the messages between the one or more synchronization applications and the interface layer are independent of a protocol used between the interface layer and the synchronization protocol stacks (Ong, [0139], communications between the application layer and the API does use not a protocol and is independent of available synchronizing protocols such as SyncML and WebDAV);

Ong does not explicitly disclose a synchronization layer coupled to the network layer and the synchronization layer consists of synchronization protocol(s).

However, Ericsson discloses a synchronization layer coupled to the network layer and the synchronization layer consists of synchronization protocol(s) (section 1.1, fig. 1, SyncML I/F is the interface layer, SyncML adapter is the synchronization layer, coupled to HTTP/WSP/OBEX or the network layer).

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Ong and Ericsson to apply the framework of

Ericsson in order to develop a synchronization method supporting a plurality of synchronization protocols as one described by Ong.

24.   For claims 2 and 9, Ong-Ericsson substantially discloses the invention as in claims 1 and 8, Ong-Ericsson further discloses at least one of the one or more applications comprises a synchronization application (Ong, [0046] lines 7-10).

25.   For claims 3 and 10, the claims are rejected as in claims 2 and 9. Ong-Ericsson further discloses the synchronization application is selected from a group consisting of Personal Information Manager (PIM) sync, contents distribution, and contents upload (Ong, [0005] lines 9-18, PIM, [0037], [0038], downloading and uploading synchronizations are possible).

26.   For claims 4 and 11, the claims are rejected as in claims 1, 8. Ong-Ericsson further discloses the interface layer is an application programming interface (API) (Ong, [0139]).

27.   For claims 5 and 12, the claims are rejected as in claims 1, 8. Ong-Ericsson further discloses the interface layer is protocol independent (Ong, [0139], an application programming interface API is not a protocol).

28.   For claims 6 and 13, the claims are rejected as in claims 1 and 8. Ong-Ericsson

further discloses synchronization layer comprises a synchronization protocol stack

(same rationale as in claim 1, synchronization layer contains a synchronization protocol

stack such as SyncML and WebDAV, etc.).

29.   Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Ong-Ericsson, as applied to claims 15, and 21, in view of Stevenson et al. (US

2003/0014483, hereafter Stevenson)

30.   For claims 19 and 25, the claim is rejected as in claims 15, 21. Ong-Ericsson

further discloses the synchronization protocol stack is selected from a group consisting

of SyncML and Web Distributed Authoring and Versioning (WebDAV) (Ong, [0143]).

        Ong-Ericsson discloses other protocols for synchronization such as SOAP and

epXML (Ong, [0143]). Ong-Ericsson does not disclose Information Content Exchange

(ICE).

        However, Stevenson discloses Information Content Exchange (ICE, [0107])

        Therefore, it would have been obvious for one skilled in the art at the time of the

invention to combine the teachings of Ong and Stevenson to implement a

synchronization protocol stack consisting of SyncML, WebDAV, and ICE to provide

more flexibility and functionality to the system.

31.   Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ong-Ericsson, as applied to claims 5, 13, in view of Stevenson.

32.   For claims 7 and 14, the claim is rejected as in claims 5, 13. Ong-Ericsson further discloses the synchronization protocol stack is selected from a group consisting of SyncML and Web Distributed Authoring and Versioning (WebDAV) (Ong, [0143]).

Ong-Ericsson discloses other protocols for synchronization such as SOAP and epXML (Ong, [0143]). Ong-Ericsson does not disclose Information Content Exchange (ICE).

However, Stevenson discloses Information Content Exchange (ICE, [0107])

Therefore, it would have been obvious for one skilled in the art at the time of the invention to combine the teachings of Ong and Stevenson to implement a synchronization protocol stack consisting of SyncML, WebDAV, and ICE to provide more flexibility and functionality to the system.

Conclusion

33.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu T. Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HH

/Bunjob Jaroenchonwanit/
Supervisory Patent Examiner, Art Unit 2152